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TECHNICAL BULLETIN

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Profilograph Specifications

Designers should be aware of some important changes to the profilograph specification for July PS&E submittals effective with the November 2003 letting.

Concrete Pavement:

The profilograph specification is no longer included in STSP 415-060 "QMP Concrete Pavement Rural". The profilograph provisions formerly included under the rural QMP, including bonus /penalty pay adjustment, are now contained in a stand-alone ride spec for concrete STSP 440-005 "Incentive Profile Index Concrete Pavement". Designers will need to add both STSP's to incorporate all the provisions formerly contained in STSP 415-060. Designers can now use the same ride spec with the bonus/penalty provisions on non-QMP work by in adding STSP 440-005 to the contract.

The criteria for using the concrete ride spec is unchanged. Appropriate revisions will be incorporated in FDM 14-1-10 due to be released this summer. Those criteria are:

Criteria for Concrete Pavement

Include STSP 440-005 and the Incentive Profile Index Concrete Pavement bid item, 440.2100. S, on projects that meet the following criteria:

- Concrete pavement quantity is 10,000 S.Y. (8500 m²)
- Cross section is rural type
- Design speed is 45 mph (70 km/h)

Excluded Areas

Indicate, in the contract, areas that should not be profiled. Exclude areas of discontinuous paving operations, severe warping of paving grades, interference with paving operations due to traffic handling requirements, and utility services or other appurtenances in driving lanes.

This special provision includes a California profilograph specification with incentive/disincentive payment. Designers will need to create a project special provision that removes bonus/penalty provisions from the language of STSP 440-005 if they do not want pay adjustment for ride. Do not use STSP 440-005 for urban work or with STSP 415-061 "QMP Concrete Urban". Districts 1 and 2 have are developing prototype project special provisions for ride on urban concrete pavements. For more information contact Michael Hall.

Special points of interest:

- Facilities Development Manual change introduces a reorganized and rewritten Chapter 17 on Railroad coordination activities.

Article continues on Page 2

Profilograph Specifications continued from page 1

Asphalt Pavement:

The profilograph specification has been renumbered from STSP 405-001 to STSP 440-001. Minor edits have been made to allow approval of alternate equipment adjustment factors. The pay table has been changed to a series of sloped straight lines rather than the simple stepped pay scale previously used.

The criteria for using the asphalt ride spec now includes rubblized pavements. Appropriate revisions will be incorporated in FDM 14-1-10 due to be released this summer. Those criteria are:

Criteria for Asphaltic Concrete Pavement

Include STSP 440-001 and the Incentive Profile Index HMA Pavement bid item 440.1000.S in contracts meeting the following criteria:

- Asphaltic pavement quantity is 10,000 tons (10,000 Mg)
- Cross section is rural type.
- Design speed is 45 mph (70 km/h)
- Pavement construction is 3 layers of new asphaltic pavement on a rubblized foundation or 2 layers of new asphaltic pavement on one of the following foundations:
 - Stable, graded and shaped base (virgin or reprocessed aggregate)
 - Asphaltic leveling course
 - Existing pavement profiled by milling

Excluded Areas

Indicate, in the contract, areas that should not be profiled. Exclude areas of discontinuous paving operations, severe warping of paving grades, interference with paving operations due to traffic handling requirements, and utility services or other appurtenances in driving lanes.

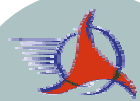
This special provision includes a California profilograph specification with the alternate profiler option and incentive/disincentive payment.

Incentive Bid Item Estimate:

Both asphalt and concrete ride specifications require the designer to enter a pre-determined amount for the ride incentive on the Schedule of Items as follows:

The profilograph provisions include a bid item for incentive pay adjustment. The designer must calculate a pre-determined bid amount for this item to be pre-printed on the Schedule of Items. The actual amount of incentive paid to the contractor will vary from that bid amount, either up or down, depending on the constructed pavement smoothness. The designer should preprint, on the Schedule of Items, a unit price of \$1 and a predetermined bid amount as follows:

- \$1500 per lane mile for asphalt pavements.
- \$4500 per lane mile for concrete pavements.



Profilograph
specification for
July PS&E
submittals effective
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State Patrol As Ad Hoc Team Member

The State Patrol spends more time on our highways than we do. It only seems logical that we accept their comments as to the effectiveness of the current design and their thoughts as to what improvements might be considered in the new design. Our 30%, 60%, and draft PS&E review meeting guidelines and memos include guidance on when and who to invite to these meetings.

They are generally interested in freeway and expressway projects throughout the district except for Milwaukee County. You may want to consider getting their input on other STH's though if there is a crash history that doesn't seem to be attributable to any apparent physical feature or ambient condition. Knowing the road, they may be able to identify a situation that may not be apparent from an engineering review.

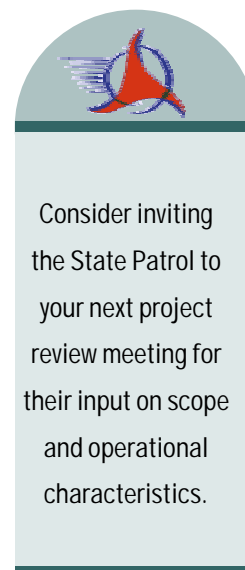
The Ad hoc member for projects in Waukesha, Racine, Walworth, Kenosha, & Milwaukee Counties is :

Wisconsin State Patrol District 2	Telephone:	(262) 785-4700
Captain Varla J. Bishop	Fax:	(262) 785-4723
21115 Highway 18		
Waukesha, WI 53186-2985		

The Ad Hoc member for projects in Fond du Lac, Ozaukee, & Washington Counties is:

Wisconsin State Patrol District 3	Telephone:	(920) 929-3700
Captain David J. Pichette	Fax:	(920) 929-7666
PO Box 984		
Fond du Lac, WI 54936-0984		

Inviting the state patrol to the 30% meeting can aid in verifying the scope of the project. At 60%, they can add to traffic control concepts and staging plans by giving input as to actual operational characteristics of an existing highway. At Draft PS&E review they have an opportunity to see our final plans and schedules well before construction is to begin. Consider inviting the state patrol to your next project review meeting if you have a project that is a freeway, expressway, or STH outside of Milwaukee county.



Product/Methods Assessment Report (PMAR)

DTID, Bureau of Highway Construction, Technology Advancement Unit has a database available to the districts for the purpose of documenting new products or construction methods tried on a construction project. Construction staff should take the time, (approximately 10-20 minutes) to access this database to formally document the results of the new product or method used on the project. The information provided can assist others within the state as to the success or failure of the new product or method to avoid similar failures or to identify a benefit or savings to their project. Staff can access the database at <http://dotnet/dtidcons/pavements/index.htm>. Questions about entries in the database can be addressed to Pete Kemp at (608) 246-7953.

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Productivity**

2003 Riprap Size Changes

Designers need to be aware of new 2003 standard specifications for sizing of riprap. The old riprap bid items have been replaced with four new sizes along with four grouted riprap items.

Another change to the riprap specification is that the material is now based on dimensions of the stones and not by weight. This will make for easier determination of size in the field.

Designers should note that when specifying a particular size of riprap, the Geotextile fabrics, type R and HR also need to be called out. Geotextile Fabric, Type R shall be used for Riprap Light and Grouted Riprap Light. Geotextile Fabric, Type HR shall be used for Riprap Medium, Heavy and Extra-heavy along with the corresponding grouted items



Item Number	Specification
606.0100	Riprap Light
606.0200	Riprap Medium
606.0300	Riprap Heavy
606.0400	Riprap Extra-heavy
606.0500	Grouted Riprap Light
606.0600	Grouted Riprap Medium
606.0700	Grouted Riprap Heavy
606.0800	Grouted Riprap Extra-heavy